

SLUT

Date: Tuesday, 10/02/2009 3:10:10 PM  
User: Julie Dawson

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 500 MIRROR ASSEMBLY
Job Number	: 45734	Part Number	: D500560041
Estimate Number	: 11970	Drawing Number	: N/A
P.O. Number	:	Project Number	: N/A
This Issue	: 10/02/2009 S.O. No. :	Drawing Revision	: D
Prsht Rev.	: NC	Material	:
First Issue	: / / Type : SMALL /MED FAB	Due Date	: 28/02/2009
Previous Run	: 45288	Qty:	4 Um: Each
Written By	:		
Checked & Approved By	: <u>SLUT 09.02.10</u>		
Comment	: Est Rev:E 03.10.15 Reformat; Removed D2057 KJ/RF Est Rev:F 08-05-27 as per ECN1195p DD verified by:EC		

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



*Handwritten:* JUD 09/03/10  
D2011 Rev.9 (ECN 08-548)



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D500-560-041-CHG005

*Handwritten:* CHG006

*Handwritten:* S 05/03/24

2.0 D1048 Saddle



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D1048

Clamp

*Handwritten:* 35037 x 7 / B45382X

*Handwritten:* FF 09-03-17

*Handwritten:* FF 09-03-05

3.0 D1049 Saddle



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D1049

Saddle

*Handwritten:* B39919

*Handwritten:* FF 09-03-05

4.0 D2010101 Mirror Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2010-101

Bracket

*Handwritten:* B39920

*Handwritten:* FF 09-03-05

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 500 MIRROR ASSEMBLY

Job Number: 45734

Part Number: D500560041

Job Number:



Seq. #: Machine Or Operation: Description :

5.0 D2010103 Mirror Arm, 500



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2010-103 Bracket B40 667

FF 09-03-05

(4)

6.0 D2011101 6" Mirror



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2011-101 Mirror B43793

FF 09-03-05

(4)

7.0 AN526C1032R10 Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 AN526C1032R10 Screw M110049

FF 09-03-05

(4)

8.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble as per drawing D500-560

FF 09/03/05

FF 09/03/12

(4)

9.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 09/03/19/4

(4)

10.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D500-560-041 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: 45734		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09/03/17	80	Upon Ass'y it was found that the insert in the D2011 mirror is not installed deep enough. Since it is wider than the hole in		Re-inspect the D2011's in stock B43793 Parts, Qty 9 are affected See NCR 08-039	09/03/17	09/03/17	05/04/12	09/03/18
		the D2010-103 prism it is unacceptable to use. The insert is missing 0.2w" to be installed. G.A had verbal approval, not documented by ?? unknown.						
		R.C. lack of attention.						

NOTE: Date & initial all entries

Date: Tuesday, 10/02/2009 3:10:10 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 500 MIRROR ASSEMBLY

Job Number: 45734

Part Number: D500560041

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

AN34A

Bolt



(1X)

Comment: Qty.: 4.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick: Packing Kit

Qty Part Number

Description

Batch

4 AN3-4A

Bolt

M103641

9/3/23

50

12.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

S 02/03/24

(X)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D500-560-041

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

Rev G

S 09/03/24 (X)

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/03/25 (X)

Job Completion



MF 09-03-24

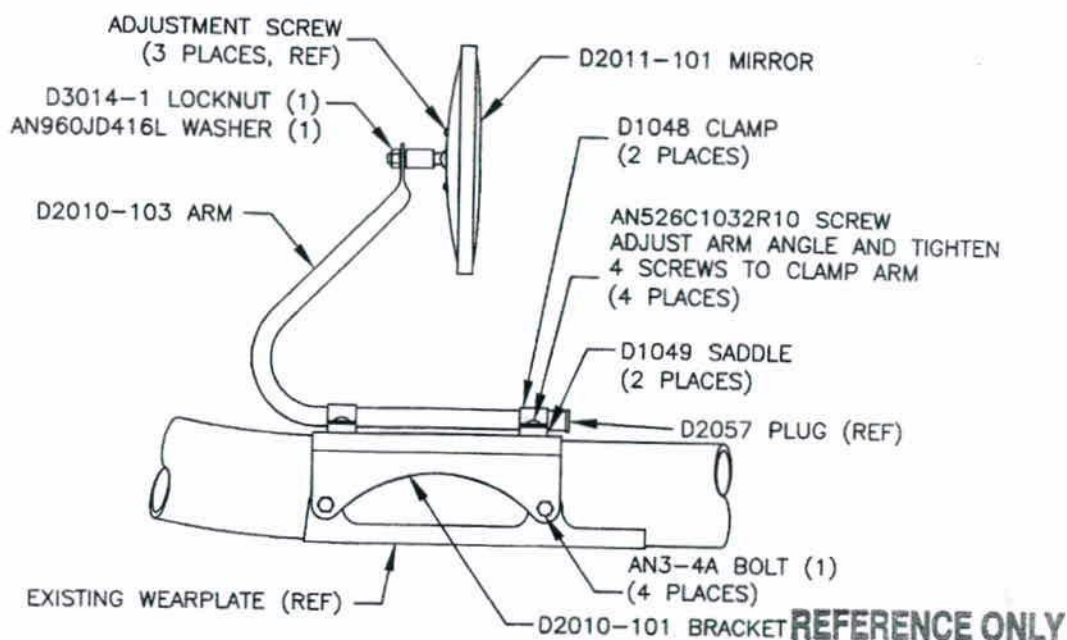


Figure 2: Installation of D500-560-041 Cargo Mirror Assembly

## 4. WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D500-560-041 Cargo Mirror Assembly	1.0 lb 0.45 kg	-45 in -1.14 m	-45 lb-kG -0.51 m-kG	24 in 0.61 m	24 in-lb 0.27 m-kG

## 5. PARTS LIST

Qty	Part Number	Description
X	D500-560-041	CARGO MIRROR ASSEMBLY
1	D2011-101	MIRROR
1	*D3014-1	LOCKNUT
1	*AN960JD416L	WASHER
2	D1048	CLAMP
2	D1049	SADDLE
1	D2010-101	BRACKET
1	D2010-103	ARM
4	AN3-4A	BOLT
4	AN526C1032R10	SCREW (OR AN526-1032R10)

\* PARTS ARE INCLUDED WITH D2011-101 MIRROR

45734



**Jason Murdoch**

---

**From:** David Shepherd [dshepherd@dartaero.com]  
**Sent:** March 17, 2009 11:54 AM  
**To:** 'Jason Murdoch'  
**Cc:** 'Bill Beckett'; 'L Lacelle'; 'Mike Petsche'  
**Subject:** FW: NC D2011-101 mirror  
**Importance:** High  
**Attachments:** NC D2011-101 B43793 002.jpg; NC D2011-101 B43793 001.jpg

Jason,

In my opinion, the 10 mirrors with improperly installed D2829 studs should just be scrapped.  
What a waste of time and money.

David

---

**From:** Jason Murdoch [mailto:jmurdoch@dartaero.com]  
**Sent:** Tuesday, March 17, 2009 9:28 AM  
**To:** 'David Shepherd'  
**Subject:** NC D2011-101 mirror  
**Importance:** High

Hi David,

In the attached photo's, I found 10 out of 25 D2011-101 B43793 mirrors that the D2829 stud was not installed all the way. As you can see they are missing 0.09". This section does not fit through the strut, as the hole is 0.250-0.257", and the bottom section of the D2829 is 0.310" od.

Are these going to be acceptable if we install a spacer washer or two as a deviation, or will this cause too much vibration?

These clearly have to be installed flush for assembly.....BUT.....this was apparently okayed, by an unknown source, and no written approval to go with it.

Jason Murdoch

**Qc. Coordinator**

[jmurdoch@dartaero.com](mailto:jmurdoch@dartaero.com)

No virus found in this incoming message.

Checked by AVG.

Version: 7.5.557 / Virus Database: 270.11.15/2004 - Release Date: 3/16/2009 7:04 AM

No virus found in this outgoing message.

Checked by AVG.

Version: 7.5.557 / Virus Database: 270.11.17/2007 - Release Date: 3/17/2009 10:18 AM